



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,372	03/22/2004	Lionel M. Nelson	9473.18567	2216

58633 7590 11/15/2007  
GABRIELA TOMESCU  
c/o RYAN KROMHOLZ & MANION, S.C.  
P.O. BOX 26618  
MILWAUKEE, WI 53226-0618

EXAMINER
----------

LEWIS, KIANDEA CHARLE

ART UNIT	PAPER NUMBER
----------	--------------

3772

MAIL DATE	DELIVERY MODE
-----------	---------------

11/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/806,372

Applicant(s)

NELSON ET AL.

Examiner

Kiandra C. Lewis

Art Unit

3772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,6-14,24 and 45-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-14,24 and 45-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/1/2004  
12/3/2004 09/22/2006 8/23/2007.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of claims 1-4,6-14, 24, and 45-48 in the reply filed on 8/23/2007 is acknowledged.

### ***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 4, 6,9-12,14, 24, 47 and 48 rejected under 35 U.S.C. 102(b) as being anticipated by Freedman US 5,176,618.**

As to claims 1, 9, 11 and 24, Freedman disclose an implant comprising a biocompatible flexible polymer matrix (col. 4, lines 65-67) and a plurality of magnetic particles bound with the biocompatible flexible polymer matrix in a space apart relationship and being magnetized to possess a desired polarity (col. 5, lines 5-10), the biocompatible flexible polymer matrix allowing flexure between the magnetic particle

Art Unit: 3772

and being sized and configured for implanting in a tissue region along a pharyngeal conduit (col. 5, lines 1-4) to magnetically interact with a source of magnetic force.

As to claim 2, it is inherent that if the material used is not isotropic it would be anisotropic in nature.

As to claim 4, Freedman discloses that the device may be made of urethane or a silicone material (col. 7, lines 9-12)

As to claim 6, Freedman discloses that the device may be made of urethane, thus if it is it inherently has the capability of being a tissue in-growth region. As to claims 45 and 46, Freedman discloses the implant to be sized and configured for placement at or near the epiglottis (col. 5, lines 2-5).

As to claims 10 and 12, Freedman discloses the magnets to have common polarities (col. 5, lines 13-23)

As to claim 14, Freedman discloses another magnet for the purpose of stabilization (col. 5, lines 19-23) that is the same desired magnetic pole and that is oriented normal or at an acute angle to the desired magnetic pole.

As to claims 47 and 48, Freedman discloses that the desired polarity establishes a desired magnetic pole (col. 6, lines 3-11) that magnetically interact with the source of magnetic force.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3772

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claim 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman in view of US2002/0066702 to Liu.**

As to claim 3, Freedman discloses the limitation of the base claim, see rejection to claim 1 above, but does not expressly state that the magnetic particles are from the group comprising NdFeB, SmCo, ferrite and alnico. The 4 different types of magnetic particles are considered to be art-related equivalents, the applicant has not disclose any criticality to one specific material over another. Where the instant specification and evident of record fail to attribute any significant (novel or unexpected results) to a particular arrangement, the particular arrangement is deemed to have been a design consideration within the skill of the art. In re Kuhle, F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975). Furthermore, It known that ferrite is used in the construction of permanent magnets. However Lui teaches the use of magnets in medical applications and disclose the use of Ferrite powder, SmCo, and NdFed (table 1 and table 2).

Art Unit: 3772

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention for the magnetic particles to be comprised of any of the materials from the group for the purpose of ensuring biocompatibility with the human tissue.

As to claim 13, Freedman discloses the limitation of the base claim, see rejection to claim 1 above, but does not expressly state the device to have a flux shield comprising a soft ferromagnetic material coupled to the biocompatible polymer matrix. Lui teaches that magnets will have various flux paths when alternating layers of cationic and magnet particles are present (fig. 3h). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention that the flux shield would be comprising the ferromagnetic material coupled to the matrix for the purpose of ensuring the most efficient polarity of the device.

**Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman in view of Knudson et al. US 6,523,542.**

As to claims 7 and 8, Freedman substantially disclosed the invention as claimed but does not expressly state the particle densities of the magnetic particles. Knudson et al. teach an implant device to reduce snoring that is to be placed in the soft palate. Knudson et al. teach that the density can vary (col. 14, lines 35-37). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to have the densities be different or be uniform for the purpose of varying the stiffness of the material (col. 14, line 34) to be the most compatible with each patient.

### ***Conclusion***



Art Unit: 3772

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiandra C. Lewis whose telephone number is 571-272-7517. The examiner can normally be reached on Mon-Thurs 9AM-6PM and alternating Fridays 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on 571-272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCL

  
11/13/07  
PATRICIA BIANCO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700  
11/13/07